between January 2008 and December 2012 were enrolled. During follow-up, a total 255 patients with prostate cancer who received primary cryoablation in National Taiwan University Hospital between January 2008 and December 2012 were enrolled. During follow-up, biochemical failure (Phoenix criteria) would trigger prostate biopsies. Local recurrence refers to pathologically proven prostate cancer in prostate and seminal vesicles. The prostate was defined into eight areas: left lateral (LL), left medial (LM), left apex (LA), right lateral (RL), right medial (RM), right apex (RA), anterior and midline posterior (PM). The seminal vesicles also defined as one area each: left seminal vesicle (LSV), right seminal vesicle (RSV). We analyzed the prostate cancer recurrence rate of each area after primary cryoablation.

Results: A total of 46 (18.0%) patients had local recurrences during a median follow-up duration of 5 years. In the primary tumor areas, local recurrence rates were 7.1% (RM), 3.4% (RA), 2.4% (RSV), 2.6% (LSV), 1.1% (LM), 2.1% (LL), and 0 (RL, anterior, PM, LA). For the areas with negative results for malignancy in pre-operative prostate biopsies, local recurrence rates were 2.4% (RSV), 1.1% (RL) and 0 (other areas). For patients whose anterior and PM areas were not routinely examined in pre-operative prostate biopsy, local recurrence rates were 3.3% (anterior) and 1.7% (PM). Multivariate analysis revealed higher tumor stages, and tumor locations at RM, and anterior areas were associated with higher risk of local recurrence. Those patients with previously proved cancer distribution at the right medial had highest recurrence rate at this area.

Conclusion: Limited to the nature of cryoablation and preservation of vital organs nearby, tumor locations in prostate would interfere with the successful rate of prostate cryoablation. To improve oncological outcomes, detailed and accurate tumor locations is essential for prostate patients who plan to receive cryoablation.

**Materials and Methods:**

To evaluate the impact of tumor locations on local recurrences in prostate cancer patients who received cryoablation, especially for patients with a simultaneous diagnosis of ASAP + PIN in the same biopsy. These patients should receive second time biopsy during follow up. Most cancer of the cancer in these patients could be detected during prostate biopsy had a higher chance of developing prostate cancer, especially for patients with a simultaneous diagnosis of ASAP + PIN in the same biopsy. These patients should receive second time biopsy during follow up.

**Purpose:**

IPD09:

**NEW CIRCULATING TUMOR CELLS (CTCS) EVALUATION METHOD IN PROSTATE CANCER**

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**Purpose:** AR-V7 is one of a splicing variant of the Androgen receptor (AR). It cause castration resistant prostate cancer (CRPC).

**Materials and Methods:** AR-V7 mRNA. But, this method is semi-quantitative and also depending on expression of EpCAM and CK. However, the decrease expression of EpCAM and CK caused by Epithelial-Mesenchymal Transition (EMT) can be an obstacle to CTC detection.

In recent years, AdnaTest is used for the evaluation of CRPC. It captures CTC depending on EpCAM and Her2 expression on cancer cells, then assess the presence of AR-V7 mRNA. But, this method is semi-quantitative and also depending on expression of EpCAM.

We consider it is important to know the number of ARV-7 positive cells accurately. Because, CTCs of each prostate cancer patients are heterogeneous.

The aim of our study is to establish a new method of improved detection rate of EpCAM and CK-negative cells (i.e. EMT cells), ensure the quantitative evaluation and assess the number of AR-V7-positive cells.

**Materials and Methods:**

LNCap was used as hormone sensitive prostate cancer (HSPC) model, and Vcap, PC3 and DU145 were used as CRPC model. Peripheral blood mononuclear cell (PBMC) and VMRC-RCW (Renal cell carcinoma cell) were used as negative control.

CK and EpCAM antibodies were used as CTC-specific antibodies. PSA, PSMA and AR-FL antibody were used as prostate-specific antibodies, cells which show positivities for those antibodies within peripheral blood were considered as CTCs.

In addition, vimentin antibody was used for the purpose of evaluating the EMT cells.

AR-V7 antibody was used as a biomarker for prostate cancer. On-chip sort was used for quantitative assessment of CTCs.

**Conclusion:** Negativity of CK-Ab for LNCap and EpCam-Ab for PC3 may indicate that EMT occurs in LNCap and PC3. Positivity of PSA-Ma-Ab, PSA-Ab and AR-FL-Ab for LNCap indicates the possibility of improving the detection rate of CTC. Positivity of AR-V7-Ab for Vcap and low positivity for LNCap were likely to be the evaluation of new biomarkers in CTC studies.

**Purpose:**

**Materials and Methods:** A total 255 patients with prostate cancer who received primary cryoablation in National Taiwan University Hospital between January 2008 and December 2012 were enrolled. During follow-up, biochemical failure (Phoenix criteria) would trigger prostate biopsies. Local recurrence refers to pathologically proven prostate cancer in prostate and seminal vesicles. The prostate was defined into eight areas: left lateral (LL), left medial (LM), left apex (LA), right lateral (RL), right medial (RM), right apex (RA), anterior and midline posterior (PM). The seminal vesicles also defined as one area each: left seminal vesicle (LSV), right seminal vesicle (RSV). We analyzed the prostate cancer recurrence rate of each area after primary cryoablation.

**Results:** A total of 46 (18.0%) patients had local recurrences during a median follow-up duration of 5 years. In the primary tumor areas, local recurrence rates were 7.1% (RM), 3.4% (RA), 2.4% (RSV), 2.6% (LSV), 1.1% (LM), 2.1% (LL), and 0 (RL, anterior, PM, LA). For the areas with negative results for malignancy in pre-operative prostate biopsies, local recurrence rates were 2.4% (RSV), 1.1% (RL) and 0 (other areas). For patients whose anterior and PM areas were not routinely examined in pre-operative prostate biopsy, local recurrence rates were 3.3% (anterior) and 1.7% (PM). Multivariate analysis revealed higher tumor stages, and tumor locations at RM, and anterior areas were associated with higher risk of local recurrence.

Those patients with previously proved cancer distribution at the right medial had highest recurrence rate at this area.

**Conclusion:** Limited to the nature of cryoablation and preservation of vital organs nearby, tumor locations in prostate would interfere with the successful rate of prostate cryoablation. To improve oncological outcomes, detailed and accurate tumor locations is essential for prostate patients who plan to receive cryoablation.

**Materials and Methods:**

**Conclusion:**

**IPD10:**

**THE ONCOLOGICAL OUTCOMES AND SURVEILLANCE POLICY OF TESTICULAR CANCER: 6-YEAR SINGLE CENTER EXPERIENCE IN TAIWAN**

Yung-Ting Cheng, Kuo-How Huang, Yeong-Shiau Pu. Department of Urology, National Taiwan University Hospital, Taiwan

**Purpose:** We investigated the treatment outcome of testicular cancer in Taiwan, given globally rise in incidence in recent decades.

**Materials and Methods:** From February 2010 to October 2015, we retrospectively collected patients with the confirmed diagnosis of testicular cancer. Clinical data, pathological details and treatment outcomes were analyzed by reviewing medical records.

**Results:** A total of 81 patients with testicular cancer were enrolled; 40 (49.4%) had seminoma and 41(50.6%) had non-seminoma germ cell cancer. The median age was 51 years old in seminoma and 30 years old in non-seminoma group. The median follow up period was 30 months (range 1 to 70).

The staging in seminoma group showed 36 (90%) stage I, 2 (5.2%) stage IS, 2 (5%) stage II and 1 (2.5%) stage III. The staging in non-seminoma group was 29 (70%) stage I, 4 (10%) stage IS, 3 (7%) stage II and 5 (12%) stage III. Approximately 97% of patients (35/36) with stage I seminoma and 90% (26/29) of patients with stage I non-seminoma accepted active surveillance. The overall recurrence rates were 12.5 % in seminoma and 31.7% in non-seminoma group. Only two patients in Non-seminoma group died of cancer. The 5-year recurrence free survival was 94.2% in seminoma and 84.2% in non-seminoma group. Five year overall survival yielded favorable results: 100% in seminoma and 94.2% in non-seminoma group.

**Conclusion:** Our study provided the latest evidence on oncological outcomes of testicular cancer. Active Surveillance in stage I testicular cancer yielded good prognosis and served as a treatment option.

**Materials and Methods:**

**Conclusion:**

**IPD11:**

**KETAMINE ABUSE AND LOWER URINARY TRACT SYMPTOMS: A SURVEY FROM DRUG REHABILITATION CENTERS IN TAIWAN**

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**Purpose:** Ketamine is the most commonly abused psychotropic substance among youngsters in Taiwan. Long-term ketamine use can cause chronic...